**Contractor Past Performance Information:
An Analysis of Assessment Narratives and
Objective Ratings**

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- Background

- Past Research

- Current Research Methodology

- Research Findings

- Recommendations

- Department of Defense (DoD) obligated over $300B in FY2013 contracts (GAO, 2014)

- Deficiencies in services acquisition has undermined DoD's ability to obtain best value

- USD(AT&L) has called for improving tradecraft in services contracting by strengthening the contracting process

- The use of contractor past performance information is a critical part of the services contracting process.

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- GAO has identified process deficiencies in DoD documentation and management of CPARS reports
  - Not always completed
  - Reports submitted late
  - Report narratives are insufficiently detailed or are in conflict with associated objective scores

- CPARS deficiencies provide less-than-optimal information to the acquisition team that relies on these reports for source selection purposes.
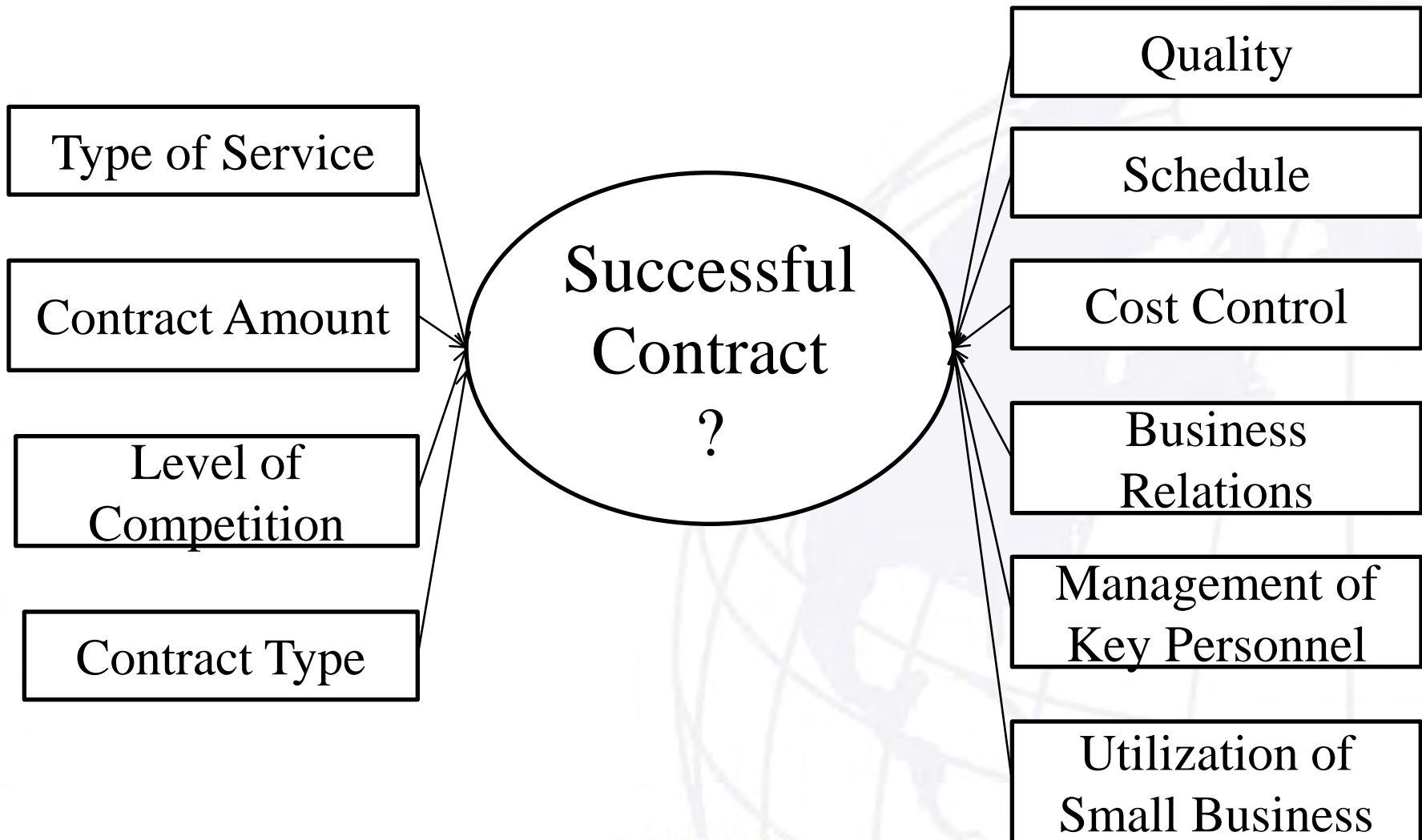
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- Purpose of our research was to use CPAR data to identify contract variables that drive the success of services acquisition.

- Research Question: Do the following variables affect the success of a service contract?
  - Service Type
  - Contract Amount
  - Level of Competition
  - Contract Type

Contract Variable

CPAR Area

- Type of Service
- Contract Amount
- Level of Competition
- Contract Type

Successful Contract ?

- Quality
- Schedule
- Cost Control
- Business Relations
- Management of Key Personnel
- Utilization of Small Business

Contractor Performance Assessment Reporting System

Assessment Areas
Quality
Schedule
Cost Control
Business Relations
Management of Key Personnel
Utilization of Small Business

Objective Ratings	
Exceptional	(5)
Very Good	(4)
Satisfactory	(3)
Marginal	(2)
Unsatisfactory	(1)

A contract for which the contractor received either Marginal or Unsatisfactory rating in any assessment area was considered as an unsuccessful contract.

	Total Contracts
Total Army MICC Non-System Contracts	14,395
Less: Non–R, J, S, D Service Contracts	8,774
Total R, J, S, D Service Contracts	5,621
Less: R, J, S, D Service Contracts at other MICC	4,906
R, J, S, D Service Contracts at MICC FDO Eustis, Knox, Hood, Bragg, Sam Houston	715
Fort Eustis	238
Fort Knox	119
Fort Hood	114
Fort Bragg	55
Fort Sam Houston	189

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	Failures	Success	Total	Failure Rate
Contracts	22	693	715	3.08%

	Successes Average Ratings	Failures Average Ratings
Quality	4.19	2.5
Schedule	4.19	2.5
Cost Control	4.1	2.31
Business Relations	4.17	3
Management of Key Personnel	4.18	2.68
Utilization of Small Business	4.07	2.5

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Finding: The S type services (Utilities and Housekeeping) had the highest failure rate of all the product service codes analyzed. (p-value $= 0.761$; Not significant)
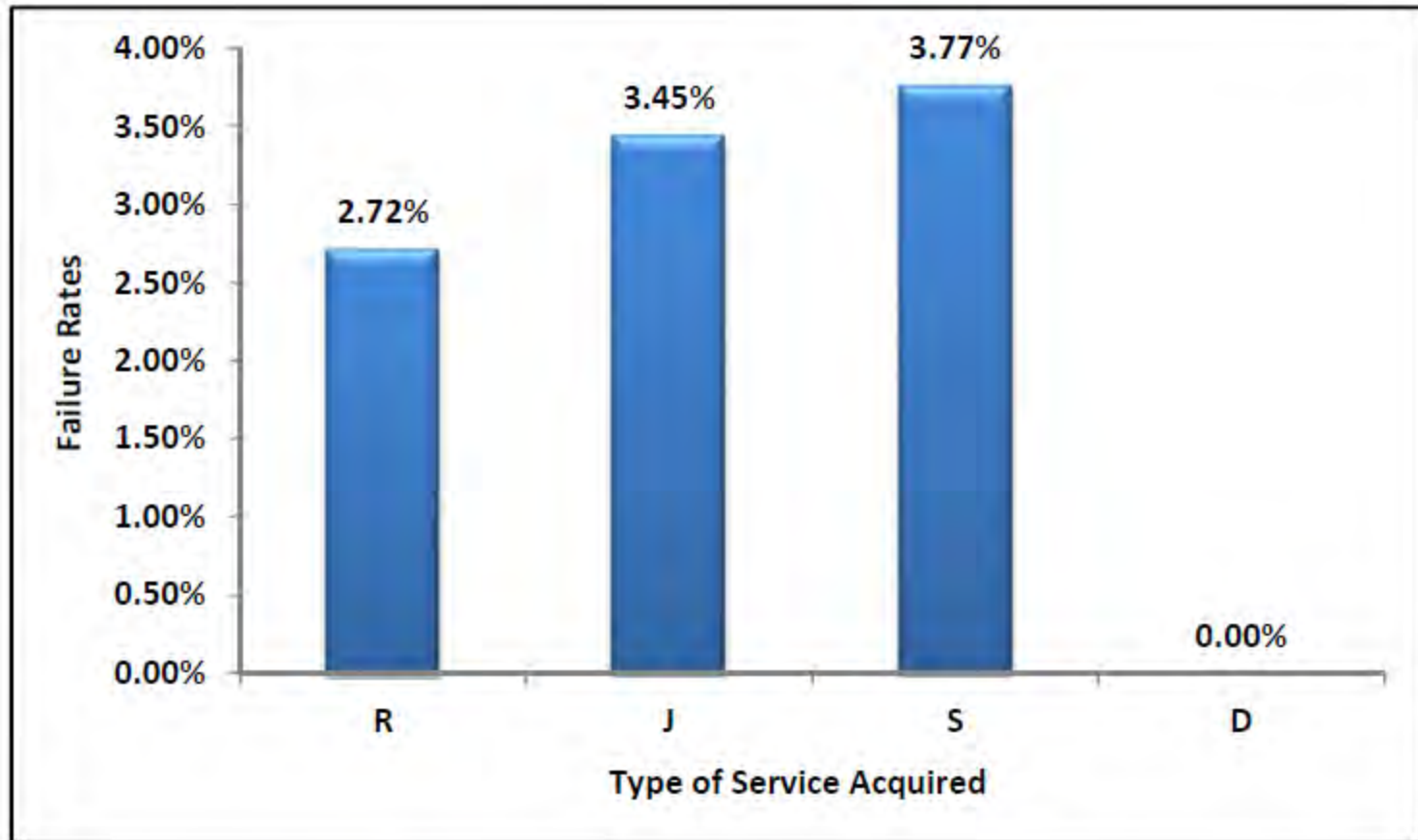
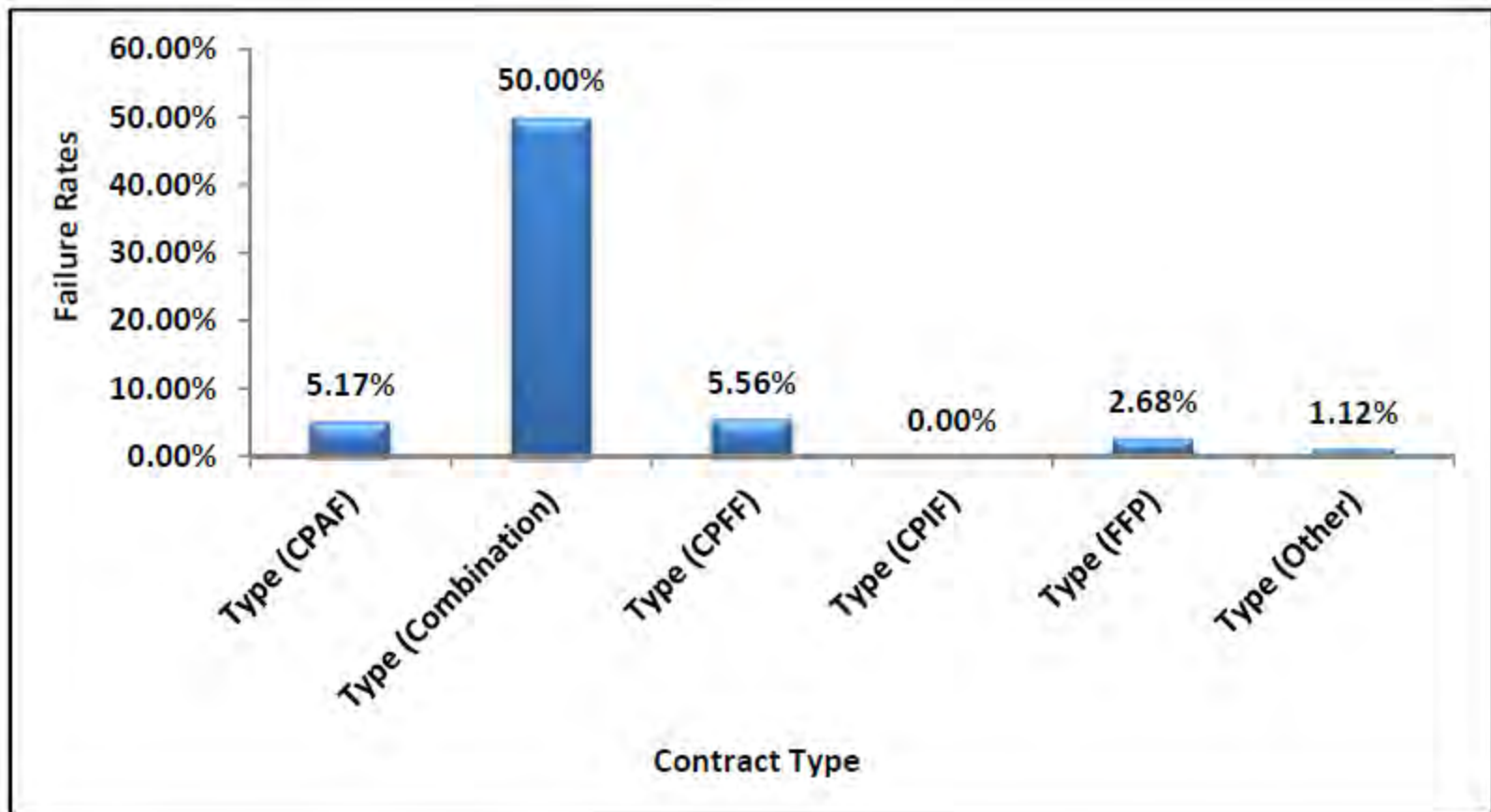**Finding: Contracts awarded competitively had the highest failure rate when compared to the other contracts.**
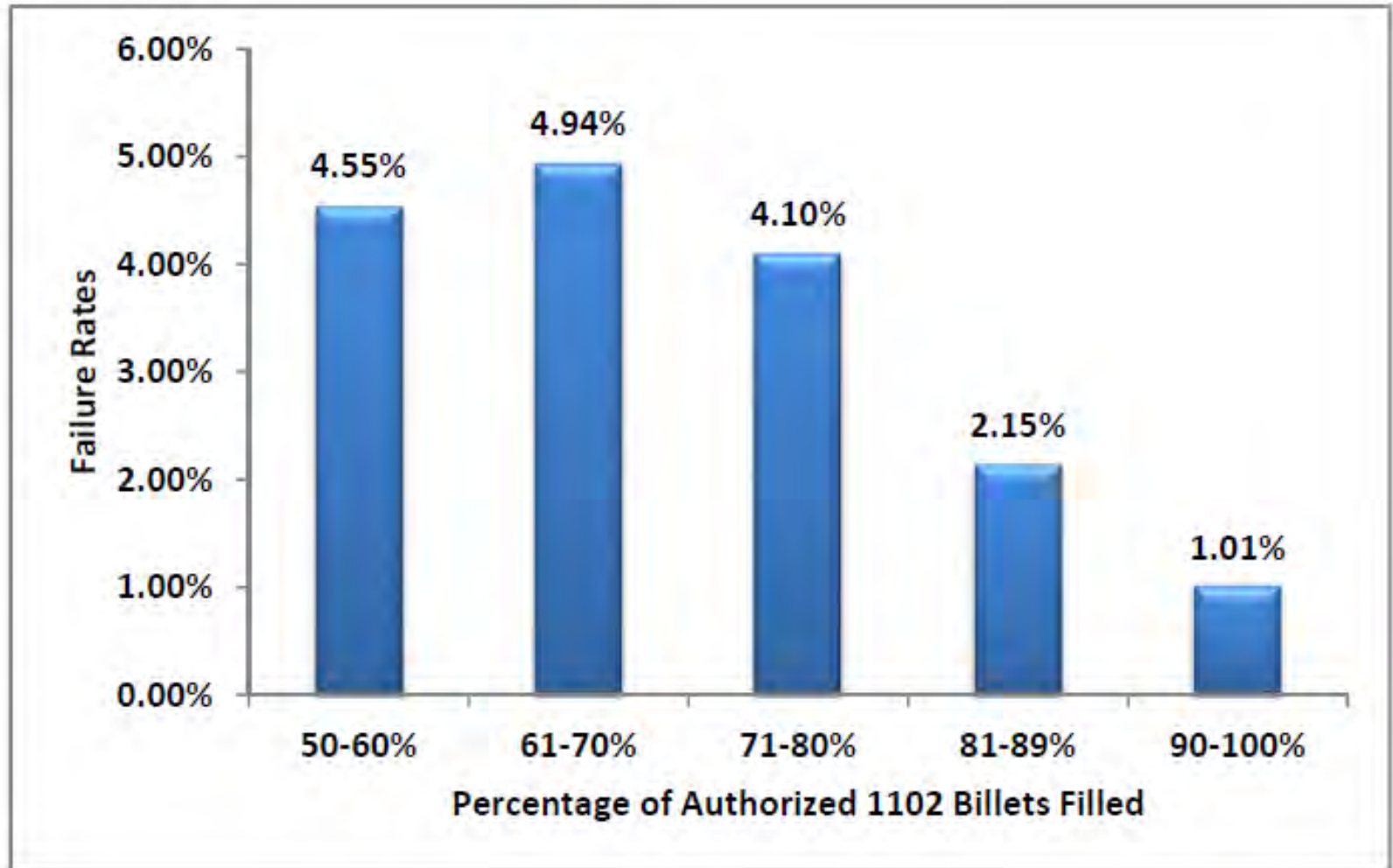
(p-value = 1.00; Not significant)
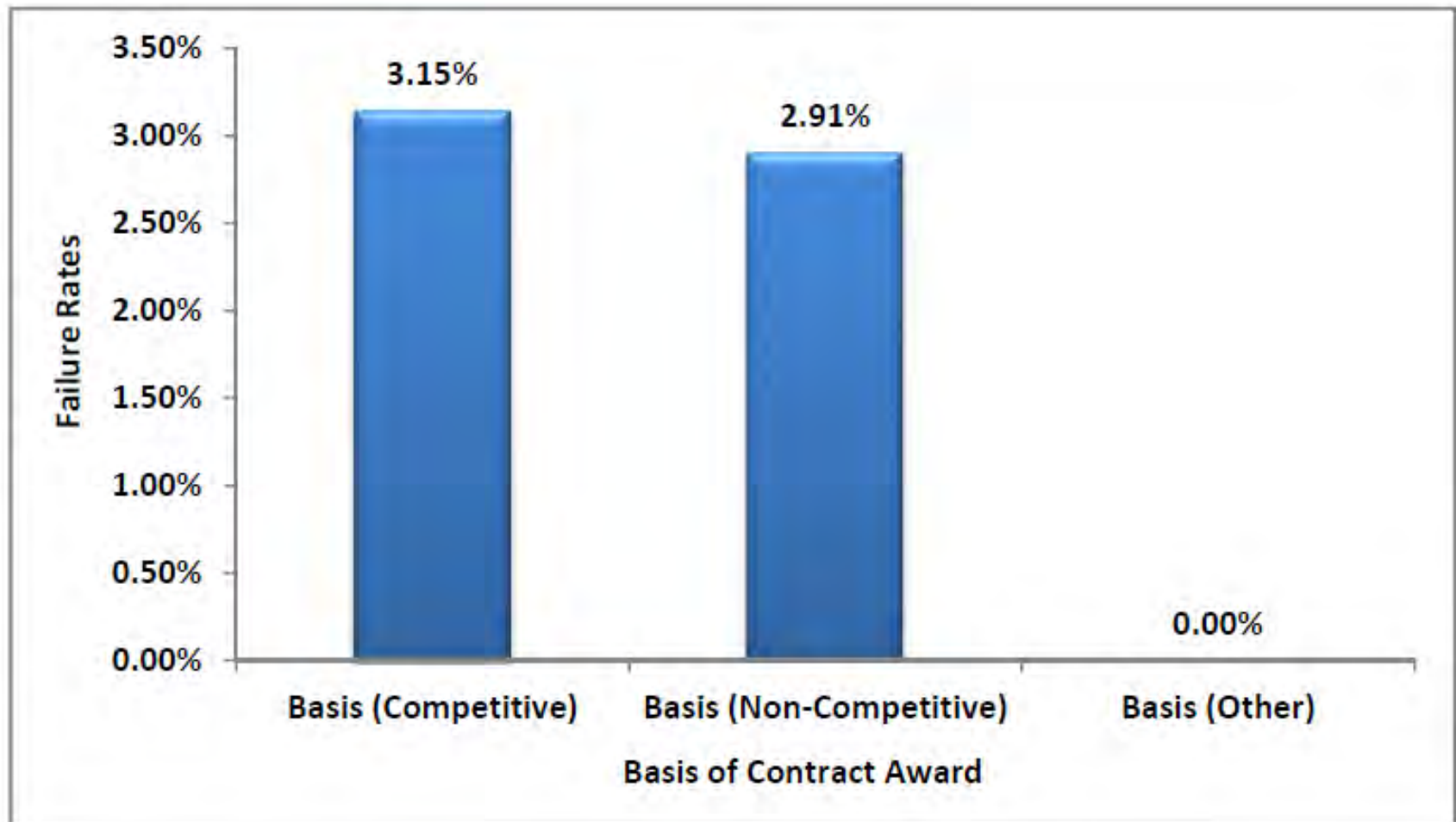
Finding: Contracts structured as a combination contract had the highest failure rate when compared to the other five types of available contracts.

(p-value = 0.009; Significant)

Finding: As the percentage of 1102 filled billets increased, the contract failure rate decreased.

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- Purpose of Research: Determine the value of the CPARS narratives in services acquisition by comparing the relationships between the subjective narratives and the objective scores.

1. What is the added value of the contractor performance narratives beyond the value of the objective scores for performance?

2. What is the statistical relationship between the sentiment contained in the narratives and the objective scores for contractor evaluations?

3. To what degree do the interview findings contradict, support, or enhance the findings for our research questions?

- Sentiment analysis
  - The narratives in 715 Army services contract CPARS reports were reviewed
  - Student researchers scored each narrative along the dimensions CPARS Quality Checklist (Quality, Robustness, Compliance, Value, and Content) and compared those scores with the objective rating scores from the CPARS report cards
  - Independent researchers' scores were compared across a small sample to ensure inter-rater reliability

- Statistical analysis
    - Relationship between sentiment analysis scores and associated objective rating scores
    - Investigate the extent of the value of the narratives
- Interviews
    - Conducted with DoD contracting officers
    - Focused on agencies' use of CPARS and value of narratives compared to objective ratings

Statistical Analysis Results

	Result	Overall	Unsuccessful Contract	Successful Contract	Successful vs Unsuccessful Statistically Significant?	P Value
Narrative Addresses All Performance Areas Assessed?	No	18.46%	4.55%	18.90%	Yes	0.043
	Yes	81.54%	95.45%	81.10%		
Narrative Based On Objective Data?	No	22.52%	0.00%	23.23%	Yes	<.01
	Yes	77.48%	100.00%	76.77%		
Narrative Is Free Of Statements To Avoid?	No	3.08%	13.64%	2.74%	Yes	<.01
	Yes	96.92%	86.36%	97.26%		

Statistical Analysis Results

	Result	Overall	Unsuccessful Contract	Successful Contract	Successful vs Unsuccessful Statistically Significant?	P Value
Narrative Is Robust & Comprehensive?	No	37.48%	9.09%	38.38%	Yes	<.01
	Yes	62.52%	90.91%	61.62%		
Could A Layman Understand Work Performed?	No	35.52%	18.18%	36.08%	Yes	0.042
	Yes	64.48%	81.82%	63.92%		

Statistical Analysis Results

	Result	Overall	Unsuccessful Contract	Successful Contract	Successful vs Unsuccessful Statistically Significant?	P Value
Is The Narrative Beneficial Above & Beyond Objective Scores?	Score 1	11.61%	0.00%	12.12%	Yes	<.01
	Score 2	21.68%	0.00%	22.37%		
	Score 3	27.97%	18.18%	28.28%		
	Score 4	20.84%	27.27%	20.63%		
	Score 5	17.76%	54.55%	16.59%		
Does The Narrative Correlate To Objective Scores Assigned?	Score 1	1.82%	4.55%	1.88%	No	0.141
	Score 2	6.43%	4.55%	6.49%		
	Score 3	27.83%	9.09%	28.43%		
	Score 4	40.42%	40.91%	40.40%		
	Score 5	23.36%	40.91%	22.80%		

- In comparison with successful contracts, the unsuccessful contracts tend to have narratives that
  - Address all performance areas more frequently,
  - Are based on objective data,
  - Are more robust, and comprehensive,
  - Can help a layman understand the work performed more frequently
  - Provide very good or exceptional amount of beneficial data more frequently
  - Are exceptionally successful more often in describing accurately why the objective scores are assigned as they are

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- The appropriate amount of weight that should be assigned to the past performance source selection criteria should be correlated to the source, availability, quality, and relevancy of the past performance information

- CPARS data is still often not reliable, robust, or comprehensive enough. This results in source selection officials not placing a significant amount of weight on the past performance evaluation criteria.

- The appropriate amount of weight that should be assigned to the past performance source selection criteria should be correlated to the source, availability, quality, and relevancy of the past performance information.

- When the objective scores and narrative sentiment are mismatched, contracting professionals tend to give more weight to the narrative versus the objective scores.

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• Contracting officers are not always applying due diligence in identifying the appropriate contractor entity in the CPARS reports. This is resulting in contractor past performance information not being fully accessible in PPIRS.

•There is a lack of reliable, robust, and comprehensive amount of past performance information available in PPIRS. This results in source selection officials soliciting contractors for references or asking contractors to fill out a past performance questionnaire.

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1. Training should focus on developing comprehensive narratives ensuring that acquisition team members can fully understand the work performed, address all performance areas assessed in their objective scores, and ensure the narratives are based on objective data.

2. Improving the quality of past performance report submissions will allow acquisition teams to assign higher weights to past performance evaluation criteria in source selection decisions.

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3. Additional data analysis tools should be incorporated into the PPIRS database to better assist contracting professionals in identifying past performance trends for a particular contractor or specific type of service.

4. COR manning levels should be reviewed throughout the DoD to ensure that organizations have sufficiently filled billets to manage the CPARS process.

• Black, S., Henley, J. & Clute, M. (2014). *Determining the value of Contractor Performance Assessment Reporting System (CPARS) Narratives for the Acquisition Process*. Monterey, California: Naval Postgraduate School.

• Wilhite, T., Stover, A., & Hart, J. (2013). *Management Levers that Drive Services Contracting Success*. Monterey, California: Naval Postgraduate School.

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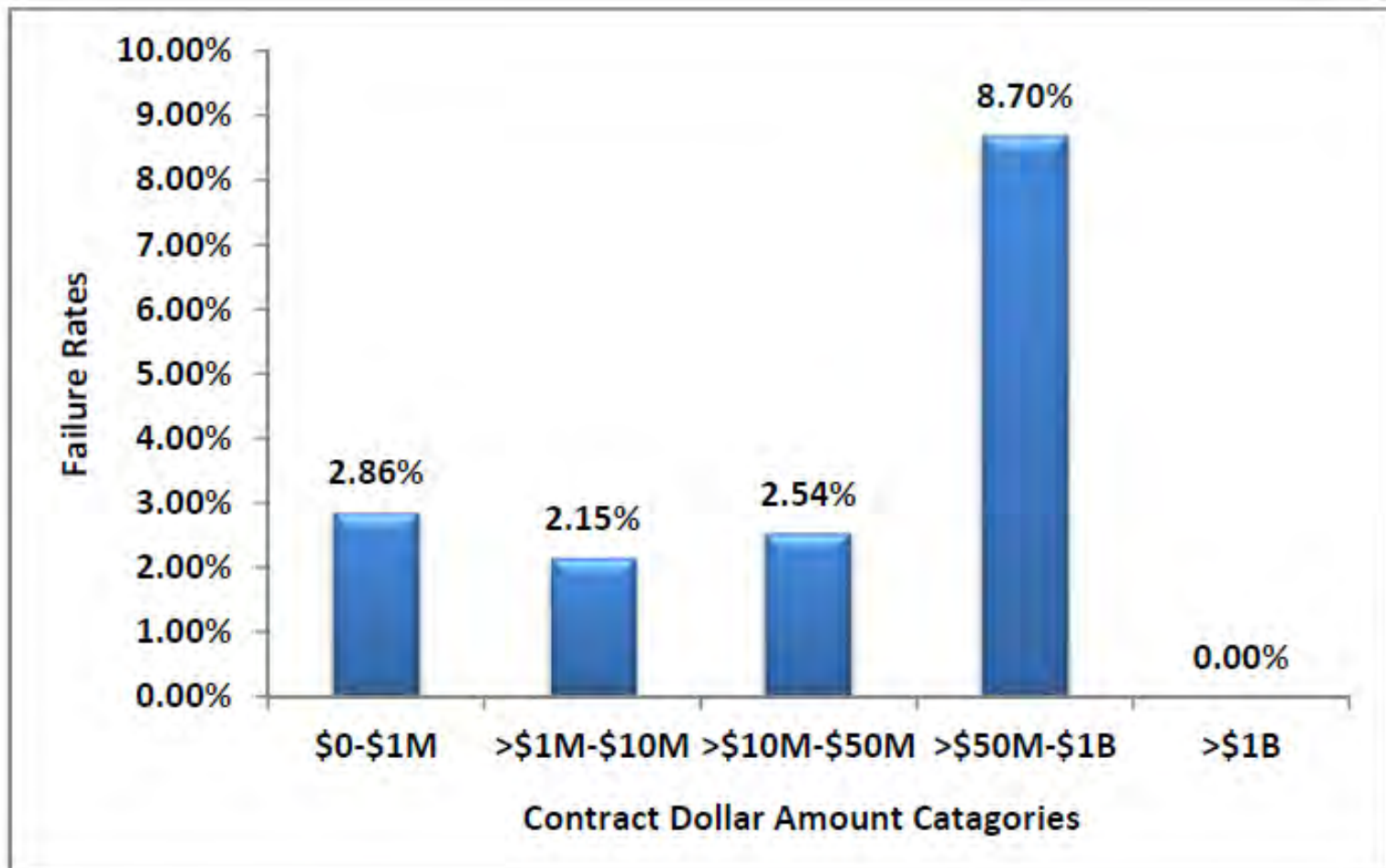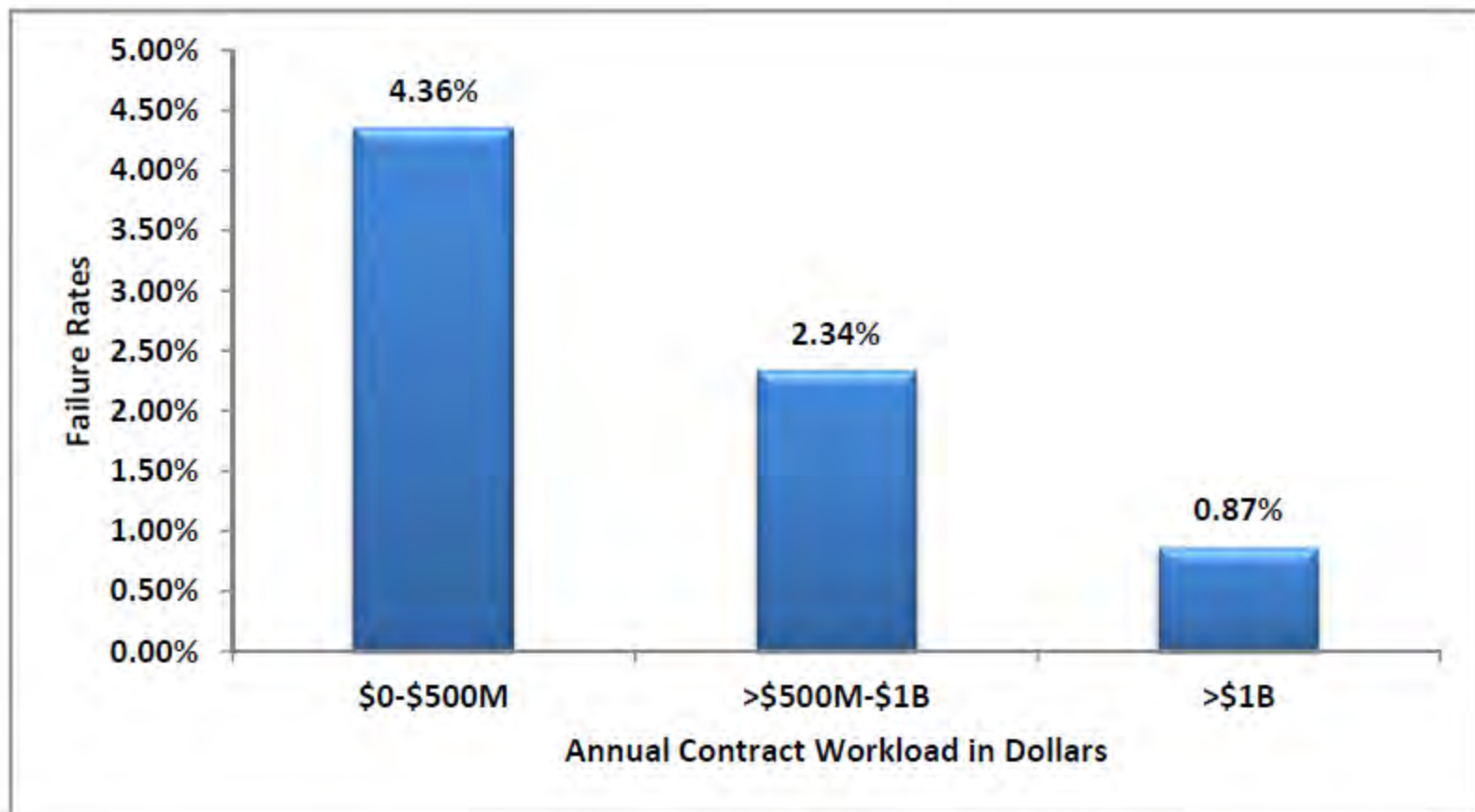Uday Apte

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Back Up Slides

Finding 2: Contracts with a dollar value from $50 million to $1 billion had the highest failure rate of all the contract categories. (p-value = 0.036; Significant)
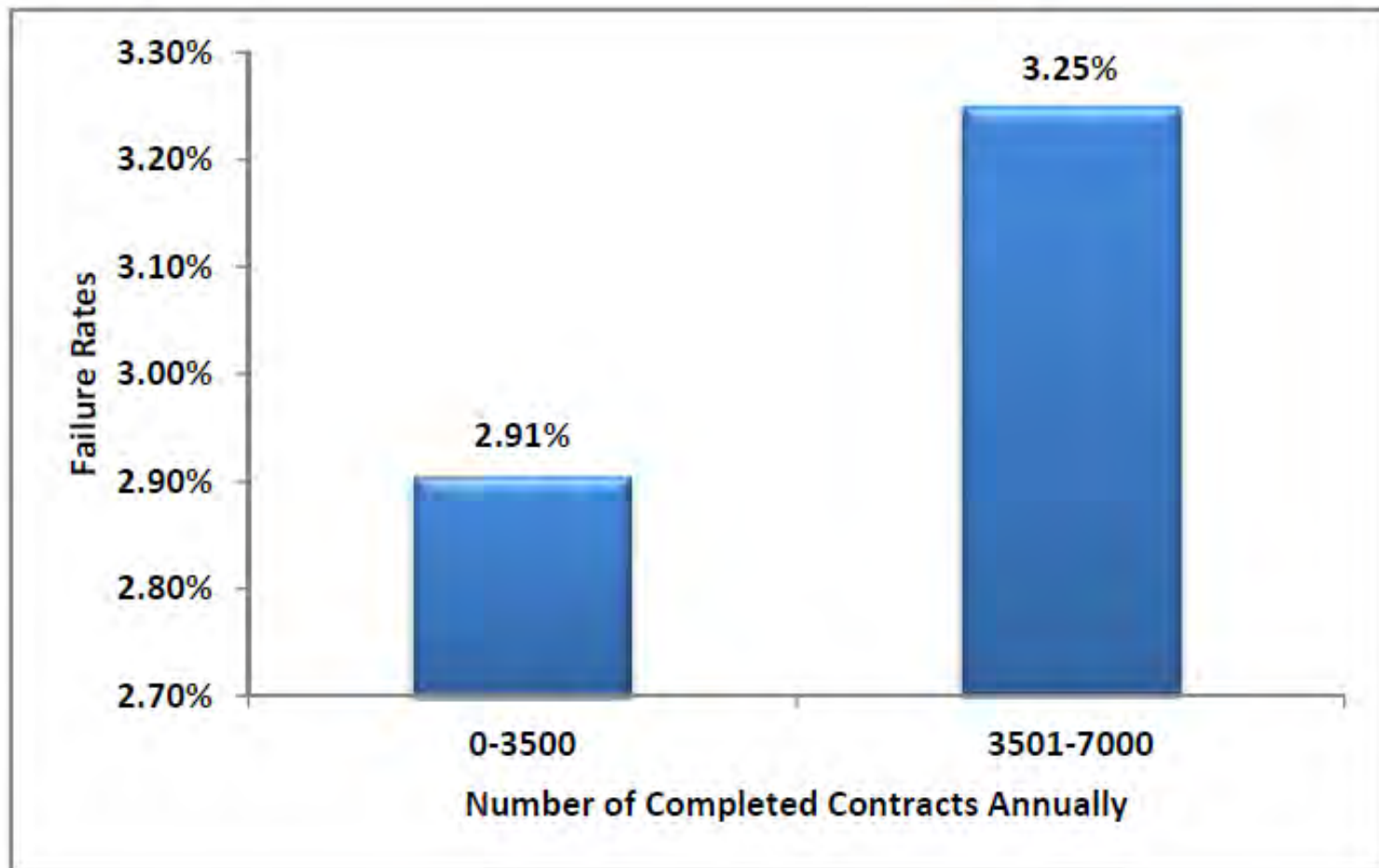
Finding 5: Regional MICC offices that had spent between $0 and $500 million in annual workload had the highest failure rate.
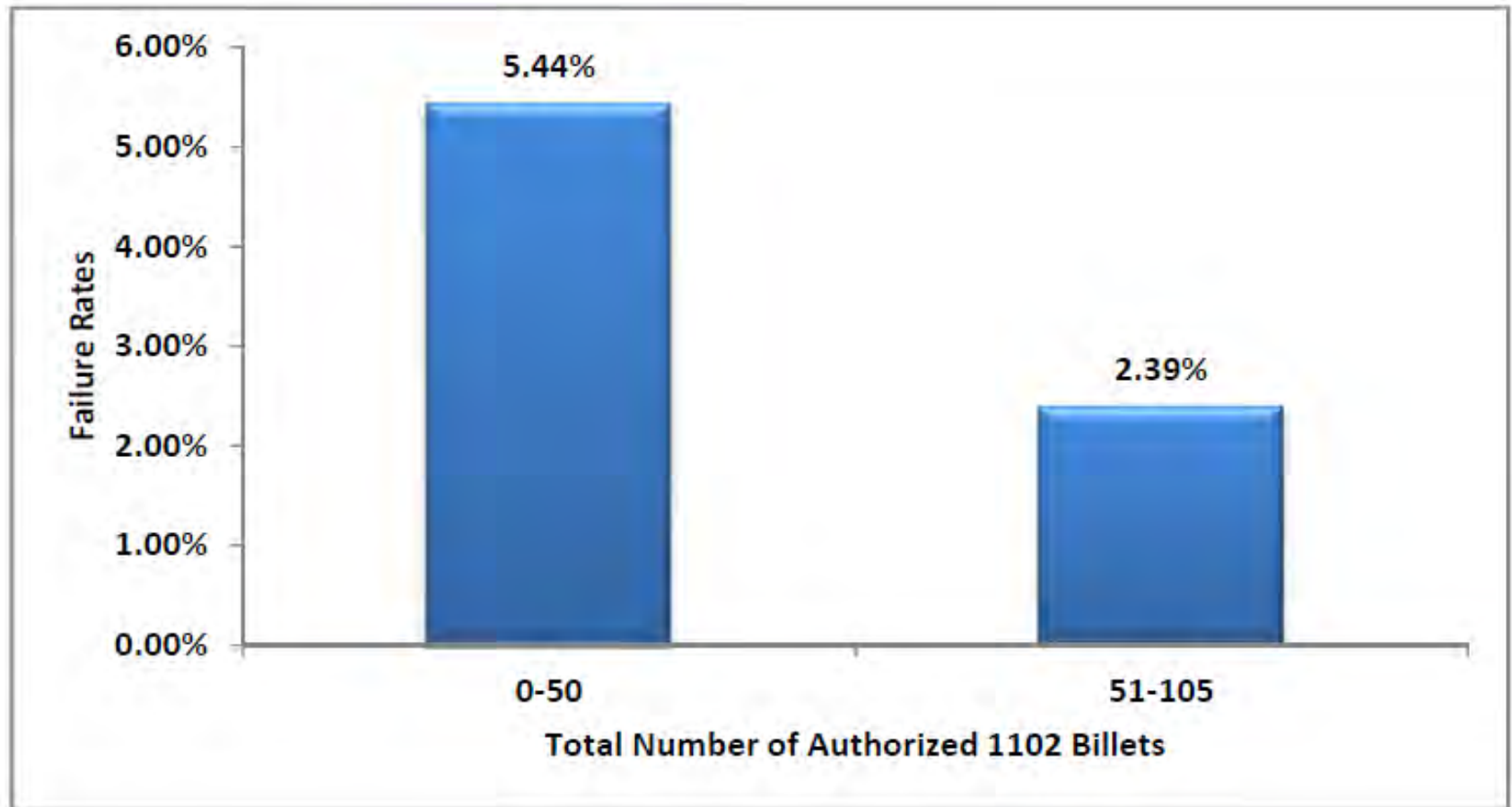
Finding 6: MICCs that completed 3,501 to 7,000 contract actions annually had the highest failure rate when compared to MICCs that completed 3,500 or fewer contract actions.

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Finding 7: The category with 0 to 50 1102 billets had the highest failure rate.

1. Place additional emphasis on procurement planning, source selection, and contract administration of S type services (Utilities and Housekeeping).
2. Provide additional review of higher value contracts in the areas of developing PWSs, cost estimates, budgets, and service delivery schedules.
3. Provide additional training on proposal evaluation, specifically evaluating cost and technical proposals, as well as project schedules.
4. Provide additional emphasis on procurement planning, source selection, and contract administration of combined cost type and fixed price services contracts.
5. Ensure sufficient 1102 billets for each organization and that these billets are filled with trained contracting professionals.